

## Incoming ports

Product	Purpose	Ports and protocols	Configurable
<b>FortiAnalyzer</b>	Syslog, Registration, Quarantine, Log & Report	TCP/443	
<b>FortiAP-S</b>	CAPWAP	UDP/5246-5247	
<b>FortiAuthenticator</b>	Policy Authentication through Captive Portal	TCP/1000	
	RADIUS Disconnect	TCP/1700	
<b>FortiClient</b>	Remote IPsec VPN	UDP/500, UDP/4500	Yes
		ESP (IP 50)	
	Remote SSL VPN	TCP/443	Yes
	Remote SSL VPN when DTLS enabled	UDP/443	Yes
	SSO Mobility Agent, FSSO	TCP/8001	
	Compliance and Security Fabric	TCP/8013	Yes
<b>FortiExtender</b>	Control channel	UDP/5246	Yes
	Data channel	UDP/25246	Yes
<b>FortiGate</b>	HA Heartbeat	ETH Layer 0x8890, 0x8891, 0x8893	
	HA Synchronization	TCP/703	
		UDP/703	
	Administrator Access	TCP/22, TCP/80, TCP/443	Yes
		ICMP	
	IPsec VPN	UDP/500, UDP/4500	Yes
		ESP (IP 50)	
	IPsec VPN Forward Error Correction	ESP (IP 50)	
	Unicast Heartbeat for Azure	UDP/730	
	DNS for Azure	UDP/53	
	Security Fabric	TCP/8013	Yes

Product	Purpose	Ports and protocols	Configurable
<b>FortiGuard</b>	IPv4 FGFM tunnel	TCP/541	
	IPv6 FGFM tunnel	TCP/542	
<b>FortiManager</b>	IPv4 FGFM tunnel	TCP/541	
	IPv6 FGFM tunnel	TCP/542	
<b>FortiPortal</b>	API for communication (FortiOS REST API)	TCP/443	
<b>FortiToken Mobile</b>	Approve/deny response from FortiToken Mobile	TCP/4433	Yes
<b>FSSO server</b>	FSSO	TCP/8001	Yes
<b>Others</b>	Administrator Access (SSH, HTTPS, HTTP)	TCP/22, TCP/80, TCP/443	Yes
		ICMP	
	Policy Override Authentication	TCP/443, TCP/8008, TCP/8010, TCP/8015, TCP/8020	Yes
	Policy Override Keepalive	TCP/1000, TCP/1003	
	SSL VPN	TCP/443	Yes
	ACME service	TCP/80, TCP/443	
	AeroScout Vendor port	UDP/1144	
	External captive portal authentication with FortiAP in bridge mode	UDP/2000	
	RADIUS DAS feature - RFC 5176	UDP/3799	



Enabling some services will cause additional standard ports to open as the protocol necessitates. For example, enabling BGP will open TCP port 179. See [View open and in use ports](#) for more information.

# Outgoing Ports

Product	Purpose	Ports and protocols	Configurable
<b>FortiAnalyzer</b>	Syslog, OFTP, Registration, Quarantine, Log & Report	TCP/514	
<b>FortiAP</b>	CAPWAP	UDP/5246-5247	
<b>FortiAuthenticator</b>	LDAP, PKI Authentication	TCP/389	
		UDP/389	
	RADIUS	UDP/1812	
	FSSO	TCP/8000	
	RADIUS Accounting	UDP/1813	
	SCEP	TCP/80, TCP/443	
	CRL Download	TCP/80	
	External Captive Portal	TCP/443	
<b>FortiExtender</b>	Data port	UDP/5246, UDP/25246	Yes
<b>FortiGate</b>	HA Heartbeat	ETH Layer 0x8890, 0x8891, 0x8893	
	HA Synchronization	TCP/703	
		UDP/703	
	IPsec VPN	UDP/500, UDP/4500	Yes
		ESP (IP 50)	
	IPsec VPN Forward Error Correction	ESP (IP 50)	
	Unicast Heartbeat for Azure	UDP/730	
	DNS for Azure	UDP/53	
<b>FortiGate Cloud</b>	Registration, Quarantine, Log & Report, Syslog, Contract Validation	TCP/443	
	OFTP	TCP/514	
	Management	TCP/541	

Product	Purpose	Ports and protocols	Configurable
<b>FortiGuard</b>	AV/IPS update	TCP/443, TCP/8890	
	Cloud Application Database	TCP/9582	
	FortiGuard Queries	UDP/53, UDP/8888	
		TCP/53, TCP/443, TCP/8888	
	DNS	UDP/53, UDP/8888	
	Registration	TCP/443	
	Alert Email, Virus sample	TCP/25	
	Management, Firmware, SMS, Licensing, Policy Override	TCP/443	
	Central Management, Analysis	TCP/541	
	IPv4 FGFM tunnel	TCP/541	
	IPv6 FGFM tunnel	TCP/542	
	Secure DNS filter	TCP/53, TCP/853	
	IPAM Service	TCP/443	
	IoT Service	TCP/443	
	FortiDDNS	TCP/443	Yes
	FortiGuard persistent connection for updates (2U and VM models only)	TCP/443	
<b>FortiManager</b>	IPv4 FGFM management	TCP/541	
	IPv6 FGFM management	TCP/542	
	Log & Report	TCP/514	
	AntiSpam, WebFilter queries	UDP/53, UDP/8888	
		TCP/8888	
	Registration for license validation and UTM updates (AV, IPS)	TCP/443, TCP/8890	
<b>FortiSandbox</b>	OFTP	TCP/514	
<b>FortiSwitch</b>	FortiLink	UDP/5246-5247	Yes
<b>FortiToken Cloud</b>	Two factor authentication request to FortiToken Cloud (ftc.fortinet.com)	TCP/8686	

Product	Purpose	Ports and protocols	Configurable
<b>FortiToken Mobile</b>	Two factor request to push proxy (push.fortinet.com)	TCP/443	
	Using FAC, the request is sent to FAC	UDP/1812	
<b>FSSO</b>	FSSO	TCP/8001	Yes
<b>Others</b>	email notification	TCP/465	Yes
	netflow collector	UDP/2055	Yes
	sflow collector	UDP/6343	Yes

# Anycast and unicast services

The following services are accessed by FortiGate:

Service	Non-Anycast FQDN addresses	Anycast Domain name
FortiGuard Object download	update.fortiguard.net	globalupdate.fortinet.net
Querying service (web-filtering, anti-spam ratings) over HTTPS	securewf.fortiguard.net	globalguardservice.fortinet.net
Querying service (web-filtering, anti-spam ratings) over UDP	service.fortiguard.net	Service only in Unicast
Device info Collection	Service only in Anycast	globaldevcollect.fortinet.net
Device info Query	Service only in Anycast	globaldevquery.fortinet.net
FortiGate Cloud logging	logctrl1.fortinet.com	globallogctrl.fortinet.net
FortiGate Cloud management	mgrctrl1.fortinet.com	globalmgrctrl.fortinet.net
FortiGate Cloud messaging	msgctrl1.fortinet.com	globalmsgctrl.fortinet.net
FortiGate Cloud sandbox	aptctrl1.fortinet.com	globalaptctrl.fortinet.net
GUI icon download	productapi.fortinet.net	globalproductapi.fortinet.net
FortiCare registration	directregistration.fortinet.com	globalregistration.fortinet.net
Secure DNS	sdns.fortinet.net	globalsdns.fortinet.net
FortiCloud FortiClient	forticlient.fortinet.net	globalfctupdate.fortinet.net
FortiMobile Tokens	directregistration.fortinet.com	globalftm.fortinet.net
EMS cloud	forticlient-emsproxy.forticloud.com	forticlient-emsproxy.forticloud.com
DDNS	ddns.fortinet.net	globalddns.fortinet.net
GeoIP	gip.fortinet.net	globalgip.fortinet.net

# Change Log

Date	Change Description
2023-06-05	Initial release.